

GEMÜ R629 eSyLite

Motorized diaphragm valve



Features

- Motorized linear actuator for Open/Close applications
- Self-locking spindle actuator
- Safety shut-down integrated
- Standard optical position indicator and manual override
- Integrated emergency power supply module (optional)
- Electrical position indicator GEMÜ 1215 (optional)

Description

The GEMÜ R629 eSyLite 2/2-way diaphragm valve is motorized. It is available in an Open/Closed version. An integrated optical position indicator is standard. The self-locking actuator holds its position in a stable manner in the event of power supply failure.

Technical specifications

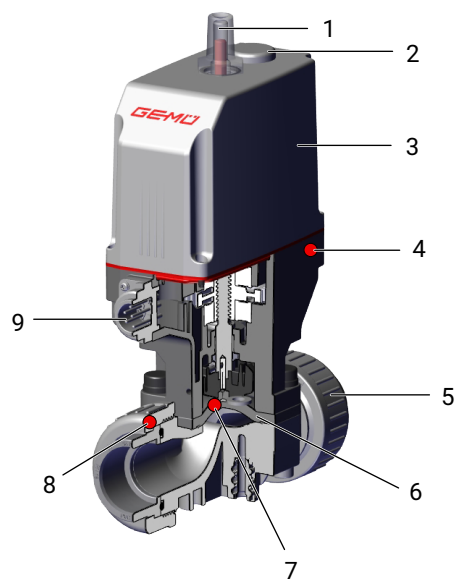
- **Media temperature:** 14 to 176 °F
- **Ambient temperature:** 14 to 122 °F
- **Operating pressure:** 0 to 90 psi
- **Nominal sizes:** 3/8" (DN 12) to 2 1/2" (DN 65)
- **Body configurations:** 2/2-way body
- **Connection standards:** ANSI | ASTM | BS | DIN | EN | ISO | JIS
- **Body materials:** ABS | Inliner PP-H, grey / outliner PP, reinforced | Inliner PVDF/outliner PP, reinforced | PP, reinforced | PP-H, natural | PVC-U, grey | PVDF
- **Diaphragm materials:** EPDM | FKM | NBR | PTFE/EPDM
- **Supply voltage:** 24 V DC
- **Actuating speed:** max. 3 mm/s
- **Protection class:** IP 65
- **Conformities:** EAC | FDA

Technical data depends on the respective configuration



Product description

Construction



Item	Name	Materials
1	Optical position indicator	PA 12
2	Manual override	
3	Motorized actuator	Reinforced polyamide
4	CONEXO actuator RFID chip (see Conexo information)	
5	Valve body	Inliner PP-H, grey / outliner PP, reinforced Inliner PVDF / outliner PP, reinforced PVC-U, grey ABS PP PP, reinforced PP-H, natural PVDF
6	Diaphragm	EPDM, FKM, NBR, PTFE / EPDM
7	CONEXO diaphragm RFID chip (see Conexo information)	
8	CONEXO body RFID chip (see Conexo information)	
9	Electrical connection	

GEMÜ CONEXO

The interaction of valve components that are equipped with RFID chips and an associated IT infrastructure actively increase process reliability.



Thanks to serialization, every valve and every relevant valve component such as the body, actuator or diaphragm, and even automation components, can be clearly traced and read using the CONEXO pen RFID reader. The CONEXO app, which can be installed on mobile devices, not only facilitates and improves the "installation qualification" process, but also makes the maintenance process much more transparent and easier to document. The app actively guides the maintenance technician through the maintenance schedule and directly provides him with all the information assigned to the valve, such as test reports, testing documentation and maintenance histories. The CONEXO portal acts as a central element, helping to collect, manage and process all data.

For further information on GEMÜ CONEXO please visit:

www.gemu-group.com/conexo

Ordering

GEMÜ Conexo must be ordered separately with the ordering option "CONEXO".

Availability

Availability of valve bodies

Spigot

MG	DN	Connection type code ¹⁾							
		0			20		28	30	7X
		Material code ²⁾							
		1	5, 20	71, 75	20	71, 75	20	1, 4	1, 4, 71, 75
10	15	-	-	-	-	-	X	-	X
20	15	X	-	X	-	X	-	X	X
	20	X	-	X	-	X	-	X	X
	25	X	-	X	-	X	-	X	X
25	32	X	-	X	-	X	-	X	X
40	40	X	-	X	-	X	-	X	X
	50	X	-	X	-	X	-	X	X
50	65	X	X	-	X	-	-	X	-

MG = diaphragm size, X = standard

1) Connection type

Code 0: Spigot DIN

Code 20: Spigot for IR butt welding

Code 28: Spigot for IR butt welding, BCF

Code 30: Spigot – inch, for welding or solvent cementing, depending on the body material

Code 7X: Body with threaded spigots for unions

2) Valve body material

Code 1: PVC-U, grey

Code 4: ABS

Code 5: PP, reinforced

Code 20: PVDF

Code 71: Inliner PP-H, grey, outliner PP, reinforced

Code 75: Inliner PVDF/outliner PP, reinforced

Union end

Di-aphra gm size	DN	Connection type code ¹⁾															
		07						7			3P, 7R	33		3M	3T	78	
		Material code ²⁾															
		1	4	5	20	71	75	1	4, 71, 75	5, 20, N5	1	1	4	1	1	5, 20, N5	71, 75
10	12	X	X	-	-	X	X	-	-	-	-	-	-	-	-	-	-
	DN 15	X	X	-	-	X	X	X	-	X	-	X	-	-	-	X	-
20	DN 15	X	X	-	-	X	X	X	X	-	X	X	X	X	X	-	X
	DN 20	X	X	-	-	X	X	X	X	-	X	X	X	X	X	-	X
	DN 25	X	X	-	-	X	X	X	X	-	X	X	X	X	X	-	X
25	32	X	X	-	-	X	X	X	X	-	X	X	X	X	X	-	X
40	40	X	X	-	-	X	X	X	X	-	X	X	X	X	X	-	X
	50	X	X	-	-	X	X	X	X	-	X	X	X	X	X	-	X
50	65	X	X	X	X	-	-	-	-	-	-	-	-	-	-	-	-

MG = diaphragm size

X = Standard

1) Connection type

Code 07: Spigot body with GEMÜ 1035 union end, DIN insert (socket)

Code 7: Union end with insert (socket) – DIN

Code 7R: Union end with insert (Rp threaded socket) – DIN

Code 33: Union end with inch insert – BS (socket)

Code 3M: Union end with inch insert – ASTM (socket)

Code 3P: Union end with NPT threaded socket insert

Code 3T: Union end with insert – JIS (socket)

Code 78: Union end with insert (for IR butt welding) – DIN

2) Valve body material

Code 1: PVC-U, grey

Code 4: ABS

Code 5: PP, reinforced

Code 20: PVDF

Code 71: Inliner PP-H, grey, outliner PP, reinforced

Code 75: Inliner PVDF/outliner PP, reinforced

Code N5: PP-H, natural

Threaded socket

MG	DN	Connection type code 1 ¹⁾
		Material code 1, 5, 20 ²⁾
10	DN 12	X

MG = diaphragm size

X = Standard

1) Connection type

Code 1: Threaded socket DIN ISO 228

2) Valve body material

Code 1: PVC-U, grey

Code 5: PP, reinforced

Code 20: PVDF

Solvent cement socket

MG	DN	Connection type code 2 ¹⁾
		Material code 1 ²⁾
10	DN 12	X

MG = diaphragm size

X = Standard

1) Connection type

Code 2: Solvent cement socket DIN

2) Valve body material

Code 1: PVC-U, grey

Flange

MG	DN	Connection type code ¹⁾									
		4					39				
		Material code ²⁾									
		1	5	20	71	75	1	5	20	71	75
20	15	X	-	-	X	X	X	-	-	X	X
	20	X	-	-	X	X	X	-	-	X	X
	25	X	-	-	X	X	X	-	-	X	X
25	32	X	-	-	X	X	X	-	-	X	X
40	40	X	-	-	X	X	X	-	-	X	X
	50	X	-	-	X	X	X	-	-	X	X
50	65	X	X	X	-	-	X	X	X	-	-

MG = diaphragm size, X = standard

MG = diaphragm size

X = Standard

1) Connection type

Code 4: Flange EN 1092, PN 10, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1

Code 39: Flange ANSI Class 125/150 RF, length only for body configuration D acc. to EN 558 series 1, ISO 5752, basic series 1

2) Valve body material

Code 1: PVC-U, grey

Code 5: PP, reinforced

Code 20: PVDF

Code 71: Inliner PP-H, grey, outliner PP, reinforced

Code 75: Inliner PVDF/outliner PP, reinforced

Flare

MG	DN	Connection type code 75 ¹⁾
		Material code N5 ²⁾
10	DN 15	X
	DN 20	X

MG = diaphragm size

X = Standard

1) Connection type

Code 75: Flare connection with PVDF union nut

2) Valve body material

Code N5: PP-H, natural

Availability of mounting plate

Material code ¹⁾		
MG	DN	
10	12	X
	15	X
	20	X

- 1) **Valve body material**
Code 20: PVDF
Code N5: PP-H, natural

Order data

Order codes

The order data provide an overview of standard configurations.

Please check the availability before ordering. Other configurations available on request.

1 Type	Code
Diaphragm valve, electrically operated, plastic diaphragm valve	R629

2 DN	Code
DN 12	12
DN 15	15
DN 20	20
DN 25	25
DN 32	32
DN 40	40
DN 50	50
DN 65	65

3 Body configuration	Code
2/2-way body	D

4 Connection type	Code
Spigot	
Spigot DIN	0
Spigot for IR butt welding	20
Spigot for IR butt welding, BCF	28
Spigot – inch, for welding or solvent cementing, depending on the body material	30
Body with threaded spigots for unions	7X
Union end	
Union end with insert (socket) – DIN	7
Spigot body with GEMÜ 1035 union end, DIN insert (socket)	07
Union end with insert (Rp threaded socket) – DIN	7R
Union end with inch insert – BS (socket)	33
Union end with inch insert – ASTM (socket)	3M
Union end with NPT threaded socket insert	3P
Union end with insert – JIS (socket)	3T
Union end with insert (for IR butt welding) – DIN	78
For DN 65 code 07: Spigot body with fitting screw connection see data sheet 1035.	
Threaded socket	
Threaded socket DIN ISO 228	1
Solvent cement socket	
Solvent cement socket DIN	2
Flange	
Flange EN 1092, PN 10, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1	4
Flange ANSI Class 125/150 RF, length only for body configuration D acc. to EN 558 series 1, ISO 5752, basic series 1	39

4 Connection type	Code
Flare	
Flare connection with PVDF union nut	75

5 Valve body material	Code
PVC-U, grey	1
ABS	4
PP, reinforced	5
PVDF	20
Inliner PP-H, grey, outliner PP, reinforced	71
Inliner PVDF/outliner PP, reinforced	75
PP-H, natural	N5

6 Diaphragm material	Code
Elastomer	
NBR	2
FKM	4
EPDM	29
PTFE	
PTFE/EPDM one-piece	54
PTFE/EPDM two-piece	5M
Note: The PTFE/EPDM diaphragm (code 5M) is available from diaphragm size 25.	

7 Voltage/Frequency	Code
24 V DC	C1

8 Control module	Code
ON/OFF actuator (economy)	A0
ON/OFF actuator (economy)	A1
Emergency power supply module (NC)	
ON/OFF actuator (economy)	A2
Emergency power supply module (NO)	
OPEN/CLOSE control with mounted GEMÜ 1235 position indicator	Y0
OPEN/CLOSE control with mounted GEMÜ 1235 position indicator	Y1
Emergency power supply module (NC)	
OPEN/CLOSE control with mounted GEMÜ 1235 position indicator	Y2
Emergency power supply module (NO)	
OPEN/CLOSE control with mounted GEMÜ 1215 position indicator	Z0
OPEN/CLOSE control with mounted GEMÜ 1215 position indicator	Z1
Emergency power supply module (NC)	
OPEN/CLOSE control with mounted GEMÜ 1215 position indicator	Z2
Emergency power supply module (NO)	

9 Actuator version	Code
Actuator size 1 diaphragm size 10	1C
Actuator size 1 diaphragm size 20	1E
Actuator size 1 diaphragm size 25	1F
Actuator size 3 diaphragm size 40	3H

9 Actuator version	Code
Actuator size 3 diaphragm size 50 with distance piece	K3
10 Mounting plate	Code
Including mounting plate	M
Without mounting plate	O
Standard	

Order example

Order option	Code	Description
1 Type	R629	Diaphragm valve, electrically operated, plastic diaphragm valve
2 DN	25	DN 25
3 Body configuration	D	2/2-way body
4 Connection type	7	Union end with insert (socket) – DIN
5 Valve body material	1	PVC-U, grey
6 Diaphragm material	29	EPDM
7 Voltage/Frequency	C1	24 V DC
8 Control module	A0	ON/OFF actuator (economy)
9 Actuator version	1E	Actuator size 1 diaphragm size 20
10 Mounting plate		Standard

Technical data

Medium

Working medium: Corrosive, inert, gaseous and liquid media which have no negative impact on the physical and chemical properties of the body and diaphragm material.
The valve will seal in both flow directions up to full operating pressure (gauge pressure).

Temperature

Media temperature:

Valve body material	Media temperature
PVC-U, grey (code 1)	50 – 140 °F
ABS (code 4)	14 – 140 °F
PP, reinforced (code 5)	41 – 176 °F
PVDF (code 20)	14 – 176 °F
Inliner PP-H grey / outliner PP, reinforced (code 71)	41 – 176 °F
Inliner PVDF / outliner PP, reinforced (code 75)	14 – 176 °F
PP-H, natural (code N5)	41 – 176 °F

Ambient temperature:

Valve body material	Ambient temperature
PVC-U, grey (code 1)	50 – 122 °F
ABS (code 4)	14 – 122 °F
PP, reinforced (code 5)	41 – 122 °F
PVDF (code 20)	14 – 122 °F
Inliner PP-H grey / outliner PP, reinforced (code 71)	41 – 122 °F
Inliner PVDF / outliner PP, reinforced (code 75)	23 – 122 °F
PP-H, natural (code N5)	41 – 122 °F

If the emergency power module is used (control module code A1, A2, Z1, Z2), the maximum ambient temperature is reduced to 40 °C.

Storage temperature: 32 – 104 °F

Pressure

Operating pressure: 0 – 90 psi
All pressures are psi - gauge pressures. Operating pressure values were determined with static operating pressure applied on one side of a closed valve. Sealing at the valve seat and atmospheric sealing is ensured for the given values.
Information on operating pressures applied on both sides and for high purity media on request.
The operating pressures apply at room temperature. In case of deviating temperatures, observe the pressure / temperature correlation.

Pressure rating: PN 10

Leakage rate: Leakage rate A to P11/P12 EN 12266-1

Pressure/temperature correlation:

Valve body material		Temperatures in °C (valve body)										
Materials	Code	-10	0	5	10	20	30	40	50	60	70	80
PVC-U	1	-	-	-	6.0	6.0	6.0	6.0	3.5	1.5	-	-
ABS	4	6.0	6.0	6.0	6.0	6.0	6.0	6.0	4.0	2.0	-	-
PP-H	5	-	-	6.0	6.0	6.0	6.0	6.0	5.5	4.0	2.7	1.5
PP-H	71	-	-	6.0	6.0	6.0	6.0	6.0	5.5	4.0	2.7	1.5
PVDF	20	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	5.4	4.7
PVDF	75	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	5.4	4.7
PP-H, natural	N5	-	-	6.0	6.0	6.0	6.0	6.0	5.5	4.0	2.7	1.5

The pressure rating (PN) depends on the diaphragm size.

Data for extended temperature ranges on request. Please note that the ambient temperature and media temperature generate a combined temperature at the valve body which must not exceed the above values.

Cv-values:

MG	DN	Kv values
10	12	3.28
	15	4.10
	20	4.10
20	15	7.02
	20	11.70
	25	14.04
25	32	23.40
40	40	49.14
	50	53.82
50	65	81.90

MG = diaphragm size, Kv values in m³/h

Kv values determined acc.to DIN EN 60534 standard, inlet pressure 5 bar, Δp 1 bar, PVC-U valve body and soft elastomer diaphragm. The Kv values for other product configurations (e.g. other diaphragm or body materials) may differ. In general, all diaphragms are subject to the influences of pressure, temperature, the process and their tightening torques. Therefore the Kv values may exceed the tolerance limits of the standard.

The Kv value curve (Kv value dependent on valve stroke) can vary depending on the diaphragm material and duration of use.

Product compliance

Machinery Directive: 2006/42/EC

Pressure Equipment Directive: 2014/68/EU

Food: FDA*
* depending on version and/or operating parameters

EMC Directive: 2014/30/EU

RoHS Directive: 2011/65/EU

Materials

Materials:

Diaphragm material	O-ring material
PTFE	FPM
NBR	EPDM
FPM	FPM
EPDM	EPDM

Mechanical data

Protection class: IP 65 acc. to EN 60529

Actuating speed: Max. 3 mm/s

Flow direction: Optional

Installation position: Optional
Observe the angle of rotation to achieve an installation for optimized draining

Weight:

Actuator

MG 10: 1.76 lb
MG 20: 1.94 lb
MG 25: 2.07 lb
MG 40: 3.09 lb

Valve body

MG	DN	Spigot			Union end				Flange	Threaded socket	Solvent cement socket	Flare
		Connection type code										
0, 30	20	28	3P, 7, 7R	33	3M, 3T	78	4, 39	1	2	75		
10	12	-	-	-	-	-	-	-	-	0.18	0.13	-
	15	-	-	0.29	0.40	0.29	-	0.44	-	-	-	0.18
	20	-	-	-	-	-	-	-	-	-	-	0.28
20	15	0.26	0.22	-	0.37	0.53	0.57	0.60	1.48	-	-	-
	20	0.29	0.26	-	0.46	0.62	0.66	0.79	1.85	-	-	-
20	25	0.35	0.31	-	0.57	0.73	0.84	0.82	2.82	-	-	-
25	32	0.49	0.40	-	0.88	1.54	1.61	1.39	4.17	-	-	-
40	40	1.10	0.88	-	1.61	1.83	2.05	2.49	5.20	-	-	-
	50	1.26	1.04	-	2.20	3.09	3.31	3.53	6.79	-	-	-
50	65	2.03	7.87	-	-	-	-	-	7.05	-	-	-

MG = diaphragm size

Weight in lb

Mechanical environmental conditions: Class 4M8 acc. to EN 60721-3-4:1998

Vibration: 5g acc. to IEC 60068-2-6 Test Fc

Shock: 25g acc. to 60068-2-27 Test Ea

Actuator duty cycle and service life

Service life:	Class A acc. to EN 15714-2 Minimum 100,000 switching cycles at room temperature and permissible duty cycle.
Duty cycle:	max. 30% duty

Electrical data

Supply voltage:	24 V DC Tolerance $\pm 10\%$
Operating time:	MG 10: 2.5 s MG 20: 3.5 s MG 25: 4.0 s MG 40: 4.5 s MG 50: 7.0 s
Close tight current / rated current:	MG 10: 0.5 A MG 20: 1.4 A MG 25: 1.3 A MG 40: 2.3 A MG 50: 2.3 A
Starting current / maximum current:	MG 10: approx. 2.4 A MG 20: approx. 2.4 A MG 25: approx. 2.4 A MG 40: approx. 4.5 A MG 50: approx. 4.5 A
Standby current consumption:	approx. 10 mA

Digital input signals

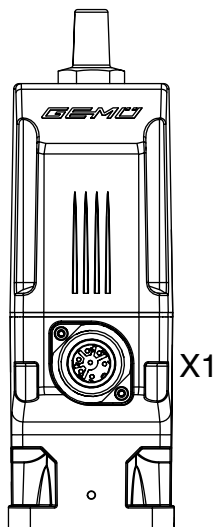
Input voltage:	max. 30 V DC $\geq 56\text{ k}\Omega$
High level:	$\geq 18\text{ V DC}$
Low level:	$\leq 5\text{ V DC}$
Minimum actuation duration:	600 ms
Input current:	$< 0.6\text{ mA}$

Emergency power supply module

Charging current:	MG 10, MG 20, MG 25: max. 0.16 A MG 40: 0.32 A MG 50: not available
Charging time:	approx. 13 min
Service life:	Guide value at 25 °C ambient temperature, approx. 3 years

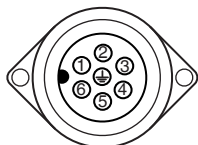
Electrical connection

Position of the connectors



Electrical connection

Connection X1



7-pin plug, Binder, type 693

Pin	Signal name
1	24 V supply voltage
2	GND
3	Digital input OPEN
4	Digital input CLOSED
5	n.c.
6	n.c.
7	n.c.

Preferred direction if both digital inputs are present
for device version 00
(see operating instructions – Product label)

Control module ordering option	Preferred direction
A0, Y0, Z0	OPEN
A1, Y1, Z1	CLOSED
A2, Y1, Z2	OPEN

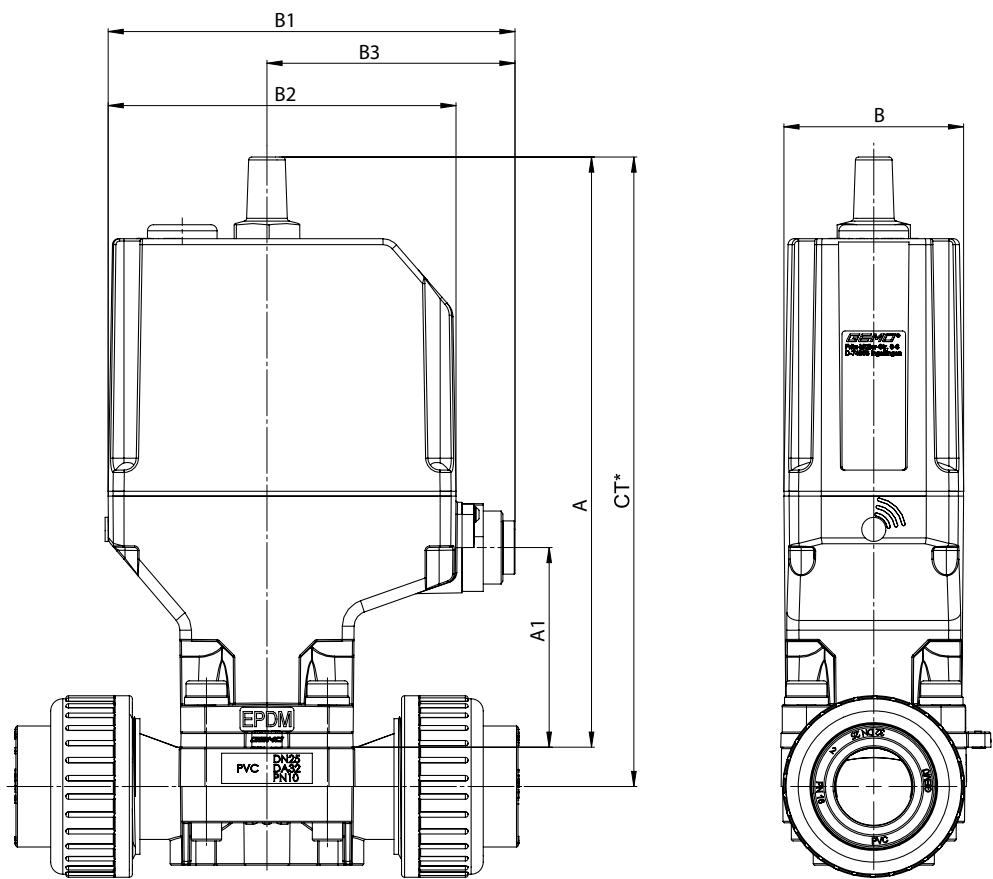
Preferred direction if both digital inputs are present
for device version 01
(see operating instructions – Product label)

Control module ordering option	Preferred direction
A0, Y0, Z0	OPEN
A1, Y1, Z1	OPEN

Preferred direction if both digital inputs are present for device version 01 (see operating instructions – Product label)	
A2, Y2, Z2	CLOSED

Dimensions

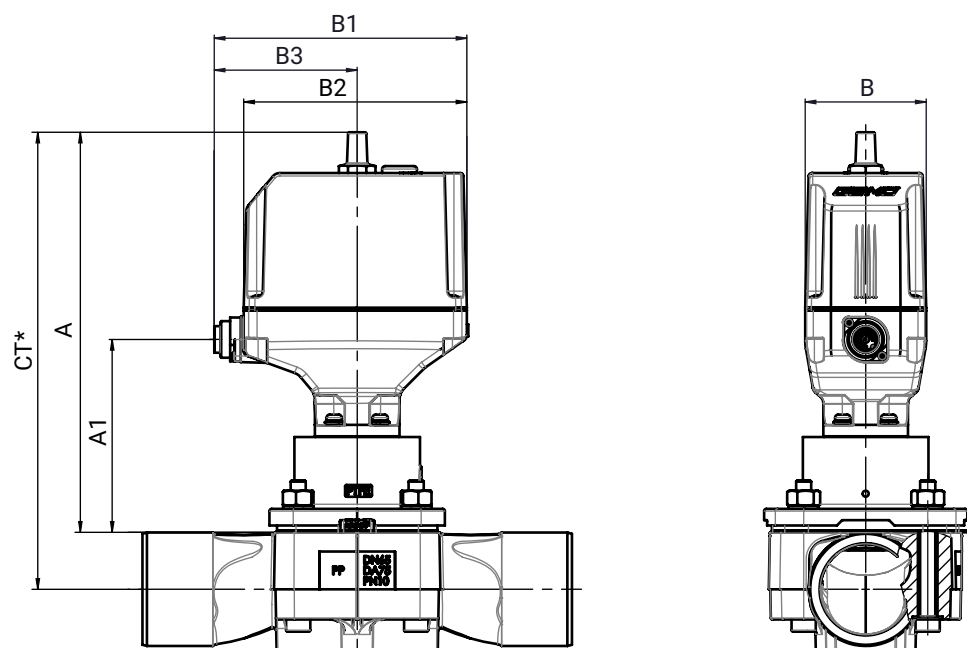
Actuator dimensions



MG	DN	A	A1	B	B1	B2	B3
10	12 - 20	7.56	2.48	2.34	5.30	4.53	3.23
20	15 - 25	7.68	2.60	2.34	5.30	4.53	3.23
25	32	8.03	2.95	2.34	5.30	4.53	3.23
40	40, 50	8.98	3.58	3.15	6.57	5.81	3.72

Dimensions in inch
MG = diaphragm size
* CT = A + H1 (see body dimensions)

Actuator dimensions with distance piece



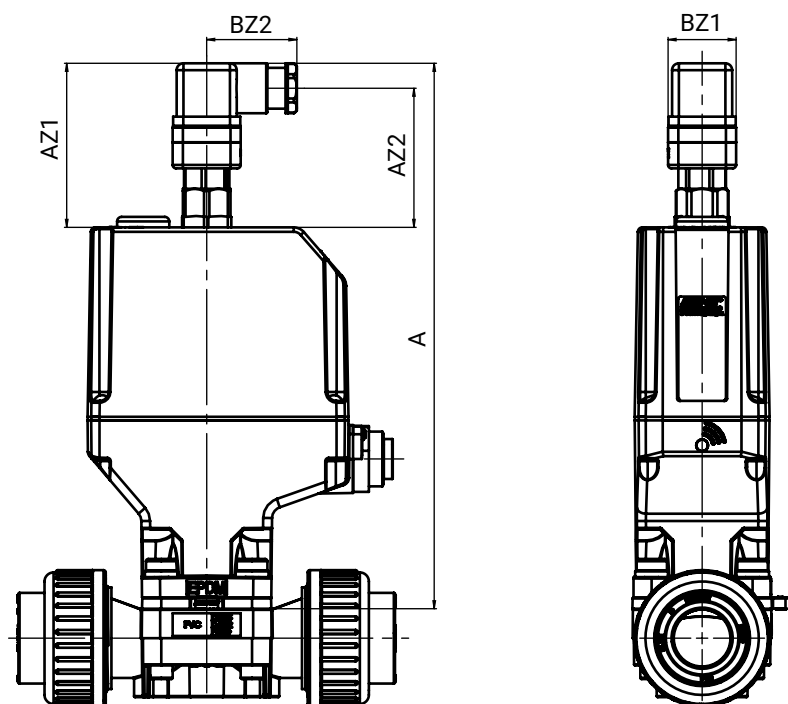
MG	A	A1	B	B1	B2	B3
50	10.43	5.08	3.15	6.57	5.81	3.72

Dimensions in inch

MG = diaphragm size

* CT = A + H1 (see body dimensions)

MG 50 with metal distance piece

Actuator dimensions with GEMÜ 1215 position indicator

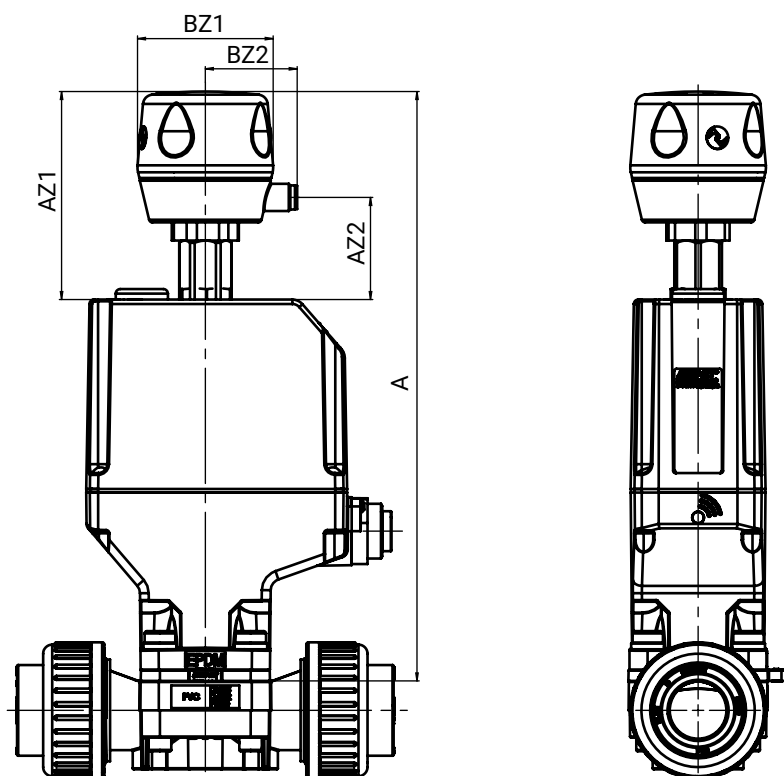
MG	A	AZ1	AZ2	BZ1	BZ2
10	9.33	2.83	2.40	1.18	1.57
20	9.45	2.83	2.40	1.18	1.57
25	9.80	2.83	2.40	1.18	1.57
40	10.75	2.83	2.40	1.18	1.57
50	12.20	2.83	2.40	1.18	1.57

Dimensions in inch

MG = diaphragm size

MG 50 with metal distance piece

Actuator dimensions with GEMÜ 1235 position indicator



MG	A	AZ1	AZ1	øBZ1	BZ2
10	10.12	3.62	1.77	2.36	1.59
20	10.24	3.62	1.77	2.36	1.59
25	10.59	3.62	1.77	2.36	1.59
40	11.54	3.62	1.77	2.36	1.59
50	12.99	3.62	1.77	2.36	1.59

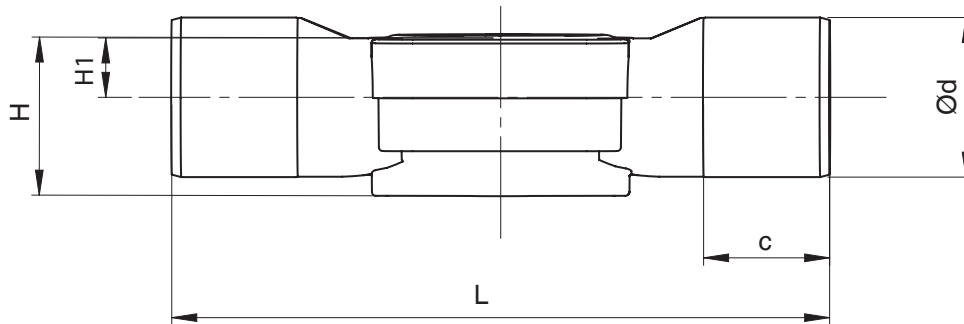
Dimensions in inch

MG = diaphragm size

MG 50 with metal distance piece

Body dimensions

Spigot DIN/inch (code 0, 30)



Connection type spigot DIN (code 0)¹⁾, body material PVC-U (code 1), PP (code 5), PVDF (code 20), inliner/outliner (code 71, 75)²⁾

MG	DN	NPS	c			ød	H			H1	L
			Material				Material				
			1	5, 20	71, 75		1	5, 20	71, 75		
20	15	1/2"	0.63	-	0.71	0.79	1.42	-	1.42	0.39	4.88
	20	3/4"	0.75	-	0.75	0.98	1.50	-	1.50	0.47	5.67
	25	1"	0.87	-	0.87	1.26	1.54	-	1.54	0.51	6.06
25	32	1¼"	1.26	-	1.26	1.57	1.61	-	1.61	0.59	6.85
40	40	1½"	1.38	-	1.02	1.97	2.49	-	2.49	0.91	7.64
	50	2"	1.50	-	1.30	2.48	2.49	-	2.49	0.91	8.82
50	65	2½"	1.81	1.81	-	2.95	3.10	3.10	-	1.53	11.18

Connection type spigot - inch (code 30)¹⁾, body material PVC-U (code 1), ABS (code 4)²⁾

MG	DN	NPS	c	ød	H	H1	L
20	15	1/2"	0.94	0.84	1.42	0.39	5.55
	20	3/4"	1.06	1.05	1.50	0.47	5.67
	25	1"	1.18	1.32	1.54	0.51	6.06
25	32	1 1/4"	1.30	1.66	1.61	0.59	6.85
40	40	1 1/2"	1.38	1.90	2.49	0.91	7.64
	50	2"	1.57	2.37	2.49	0.91	8.82
50	65	2 1/2"	1.81	2.87	3.10	1.53	11.18

Dimensions in inch

MG = diaphragm size

1) Connection type

Code 0: Spigot DIN

Code 30: Spigot - inch, for welding or solvent cementing, depending on the body material

2) Valve body material

Code 1: PVC-U, grey

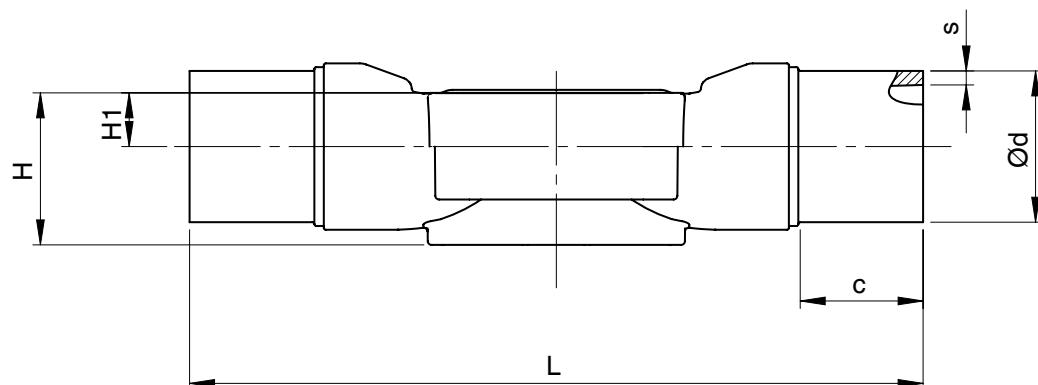
Code 4: ABS

Code 5: PP, reinforced

Code 20: PVDF

Code 71: Inliner PP-H, grey, outliner PP, reinforced

Code 75: Inliner PVDF/outliner PP, reinforced

Spigot IR (code 20)**Connection type spigot IR (code 20)¹⁾, body material inliner/outliner (code 71, 75)²⁾**

MG	DN	NPS	c	ød	H	H1	L	s	
								Material	
								71	75
20	15	1/2"	1.30	0.79	1.42	0.39	6.06	0.07	0.07
	20	3/4"	1.30	0.98	1.50	0.47	6.06	0.09	0.07
	25	1"	1.30	1.26	1.54	0.51	6.06	0.11	0.09
25	32	1¼"	1.30	1.57	1.61	0.59	7.64	0.15	0.09
40	40	1½"	1.30	1.97	2.49	0.91	7.64	0.18	0.12
	50	2"	1.30	2.48	2.49	0.91	8.82	0.23	0.12

Connection type spigot IR (code 20)¹⁾, body material PVDF (code 20)²⁾

MG	DN	NPS	c	ød	H	H1	L	s
50	65	2½"	1.69	2.95	3.10	1.53	11.18	0.14

Dimensions in inch

MG = diaphragm size

1) Connection type

Code 20: Spigot for IR butt welding

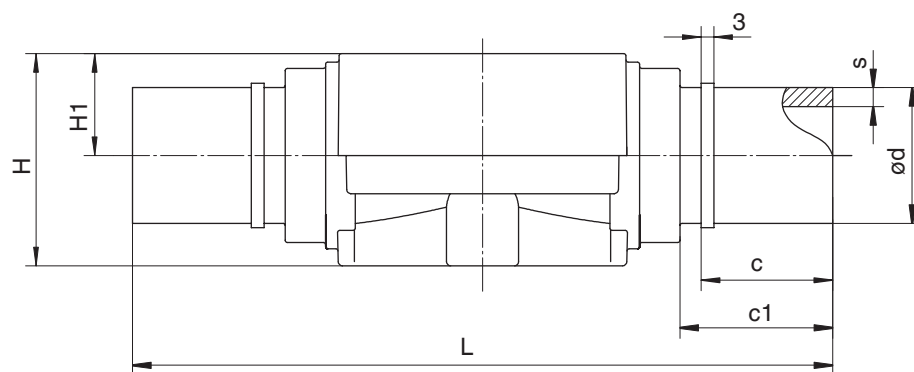
2) Valve body material

Code 20: PVDF

Code 71: Inliner PP-H, grey, outliner PP, reinforced

Code 75: Inliner PVDF/outliner PP, reinforced

Spigot (code 28)



Connection type spigot (code 28) ¹⁾, body material PVDF (code 20) ²⁾

MG	DN	NPS	c	c1	ød	H	H1	L	s
10	15	1/2"	1.22	1.46	0.79	1.61	0.63	5.28	0.75

Dimensions in inch

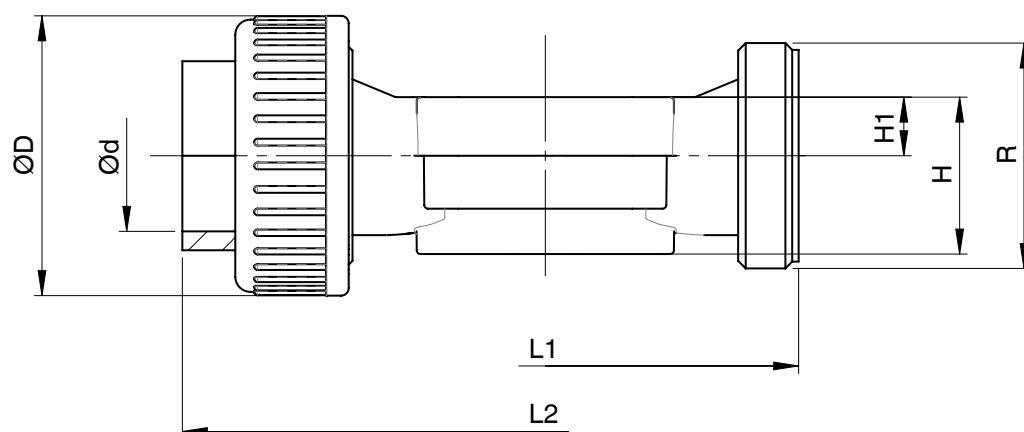
MG = diaphragm size

1) **Connection type**

Code 28: Spigot for IR butt welding, BCF

2) **Valve body material**

Code 20: PVDF

Union end DIN (code 7)

Connection type union end DIN (code 7)¹⁾, body material PVC-U (code 1), PP (code 5), PVDF (code 20), PP-H (code N5)²⁾, diaphragm size 10

MG	DN	NPS	ød	øD	H		H1		L1	L2		R
					Material		Material			Material		
					1, 20	5, N5	1, 20	5, N5		1, 20	5, N5	
10	15	1/2"	0.79	1.69	1.18	1.61	0.59	0.63	3.54	5.04	4.92	G 1

Connection type union end DIN (code 7)¹⁾, body material PVC-U (code 1), ABS (code 4), inliner/outliner (code 71, 75)²⁾, diaphragm size 20 – 40

MG	DN	NPS	ød	øD	H	H1	L1	L2				R
								Material				
								1	4	71	75	
20	15	1/2"	0.79	1.69	1.42	0.39	4.25	5.75	5.91	5.63	5.75	G 1
	20	3/4"	0.98	2.09	1.50	0.47	4.25	5.98	6.14	5.75	5.91	G 1¼
	25	1"	1.26	2.36	1.54	0.51	4.57	6.54	6.69	6.22	6.38	G 1½
25	32	1¼"	1.57	2.91	1.61	0.59	5.28	7.56	7.72	7.13	7.24	G 2
40	40	1½"	1.97	3.27	2.49	0.91	6.06	8.74	8.74	8.15	8.27	G 2¼
	50	2"	2.48	4.06	2.49	0.91	7.24	10.47	10.47	9.65	9.76	G 2¾

Dimensions in inch

MG = diaphragm size

1) **Connection type**

Code 7: Union end with insert (socket) – DIN

2) **Valve body material**

Code 1: PVC-U, grey

Code 4: ABS

Code 5: PP, reinforced

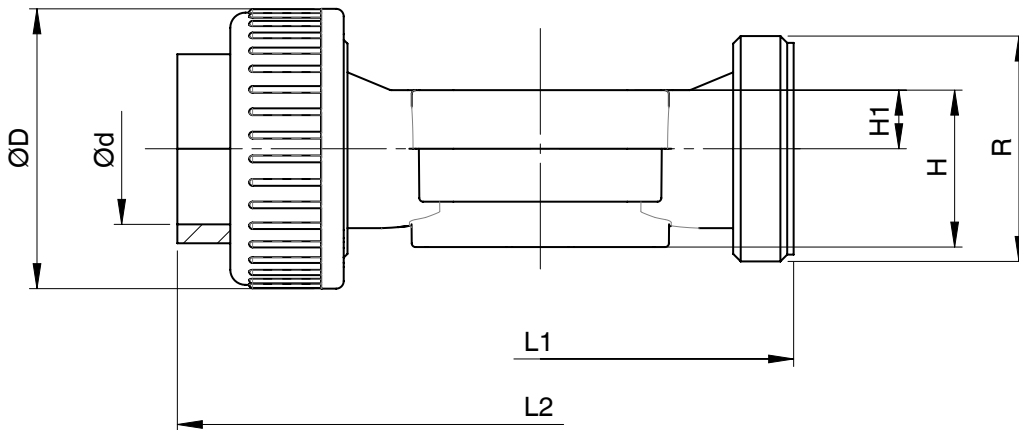
Code 20: PVDF

Code 71: Inliner PP-H, grey, outliner PP, reinforced

Code 75: Inliner PVDF/outliner PP, reinforced

Code N5: PP-H, natural

Union end inch (code 33, 3M, 3T)



Connection type union end inch (code 33)¹⁾, body material PVC-U (code 1)²⁾, diaphragm size 10

MG	DN	NPS	ød	øD	H	H1	L1	L2	R
10	15	1/2"	8.43	1.69	1.18	0.59	3.54	5.04	G1

Connection type union end inch (code 33, 3M, 3T)¹⁾, body material PVC-U (code 1)²⁾, diaphragm sizes 20 - 40

MG	DN	NPS	ød			øD		H	H1	L1	L2			R	
			Connection type			Connection type									
			33	3M	3T	33, 3M	3T				33	3M	3T	33, 3M	3T
20	15	1/2"	0.84	0.84	0.87	1.69	2.09 *	1.42	0.39	4.25	5.75	6.22	5.98	G 1	G 1¼ *
	20	3/4"	1.06	1.05	1.02	2.09	2.09	1.50	0.47	4.25	5.98	6.46	5.98	G 1¼	G 1¼
	25	1"	1.32	1.32	1.26	2.36	2.36	1.54	0.51	4.57	6.54	7.09	6.54	G 1½	G 1½
25	32	1¼"	1.67	1.66	1.50	2.91	2.91	1.61	0.59	5.28	7.56	8.03	7.56	G 2	G 2
40	40	1½"	1.90	1.90	1.89	3.27	3.27	2.49	0.91	6.06	8.74	9.06	8.74	G 2¼	G 2¼
	50	2"	2.38	2.38	2.36	4.06	4.06	2.49	0.91	7.24	10.39	10.47	10.47	G 2¾	G 2¾

Connection type BS (code 33)¹⁾, body material ABS (code 4)²⁾

MG	DN	NPS	ød	øD	H	H1	L1	L2	R
20	15	1/2"	0.84	1.69	1.42	0.39	4.25	5.91	G 1
	20	3/4"	1.06	2.09	1.50	0.47	4.25	6.14	G 1 1/4
	25	1"	1.32	2.36	1.54	0.51	4.57	6.69	G 1 1/2
25	32	1 1/4"	1.67	2.91	1.61	0.59	5.28	7.80	G 2
40	40	1 1/2"	1.90	3.27	2.49	0.91	6.06	8.66	G 2 1/4
	50	2"	2.38	4.06	2.49	0.91	7.24	10.39	G 2 3/4

Dimensions in inch

MG = diaphragm size

* Insert requires valve body DN 20

1) Connection type

Code 33: Union end with inch insert – BS (socket)

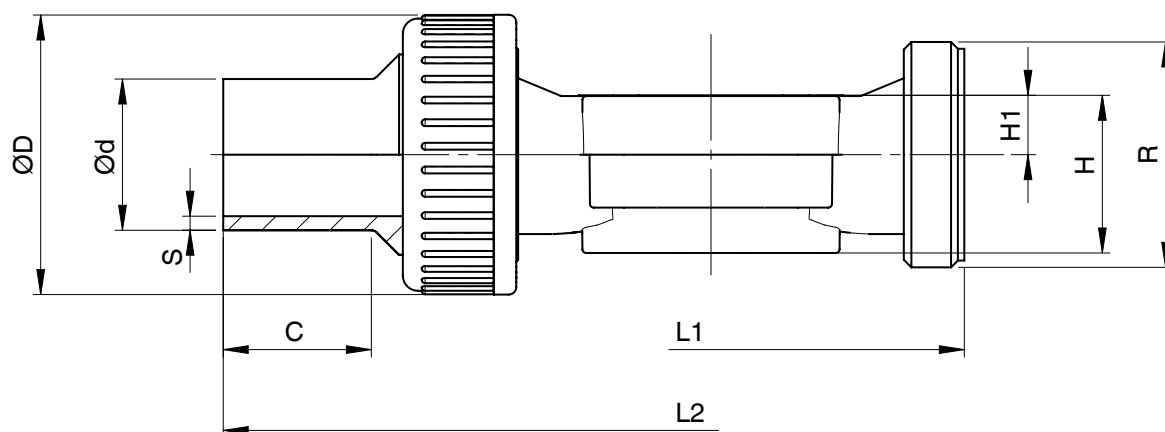
Code 3M: Union end with inch insert – ASTM (socket)

Code 3T: Union end with insert – JIS (socket)

2) Valve body material

Code 1: PVC-U, grey

Code 4: ABS

Union end DIN, IR butt welding (code 78)**Connection type union end DIN, IR butt welding (code 78)¹⁾, body materials PP (code 5), PVDF (code 20), PP-H (code N5)²⁾**

Connection type union end BWR, BWR butt welding (code 78) , Body materials F1 (code 8), F1 VDI (code 26), F1 F (code N5)													
MG	DN	NPS	c	ød	øD	H		H1		L1	L2	R	s
						Material		Material					
						5	20, N5	5	20, N5				
10	15	1/2"	1.42	0.79	1.65	1.18	1.61	0.59	0.63	3.54	7.72	0.04	0,07

Connection type union end DIN, IR butt welding (code 78)¹⁾, body material inliner/outliner (code 71, 75)²⁾

MG	DN	NPS	c	ød	øD	H	H1	L1	L2	R	s	
											Material	
											71	75
20	15	1/2"	1.42	0.03	1.69	1.42	0.39	4.25	8.43	G 1	0.07	0.07
	20	3/4"	1.46	0.04	2.09	1.50	0.47	4.25	8.66	G 1¼	0.09	0.07
	25	1"	1.54	1.26	2.36	1.54	0.51	4.57	9.21	G 1½	0.11	0.09
25	32	1¼"	1.54	1.57	2.91	1.61	0.59	5.28	10.16	G 2	0.15	0.09
40	40	1½"	1.69	1.97	3.27	2.49	0.91	6.06	11.18	G 2¼	0.18	0.12
	50	2"	1.69	2.48	4.06	2.49	0.91	7.24	12.60	G 2¾	0.23	0.12

Dimensions in inch

MG = diaphragm size

1) Connection type

Code 78: Union end with insert (for IR butt welding) – DIN

2) Valve body material

Code 5: PP, reinforced

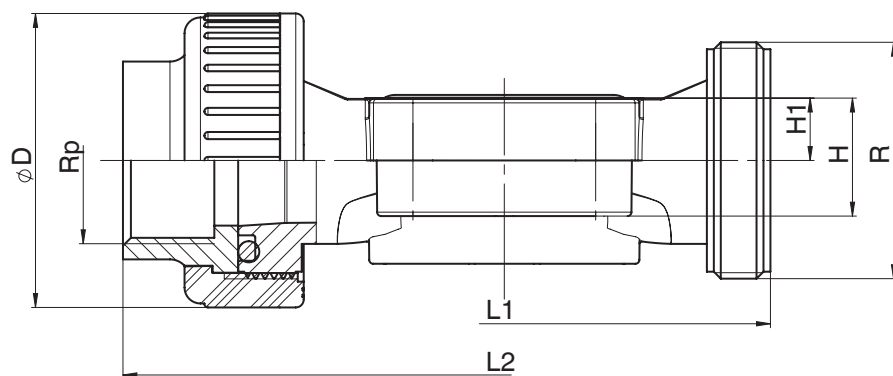
Code 20: PVDF

Code 71: Inliner PP-H, grey, outliner PP, reinforced

Code 75: Inliner PVDF/outliner PP, reinforced

Code N5: PP-H, natural

Union end Rp (code 7R) , NPT (code 3P)



Connection type union end Rp (code 7R), NPT (code 3P)¹⁾, body material PVC-U (code 1)²⁾

MG	DN	NPS	øD	H	H1	L1	L2	R	Rp/NPT
20	15	1/2"	1.69	1.42	0.39	4.25	5.75	G 1	1/2
	20	3/4"	2.09	1.50	0.47	4.25	5.98	G 1¼	3/4
	25	1"	2.36	1.54	0.51	4.57	6.54	G 1½	1
25	32	1¼"	2.91	1.61	0.59	5.28	7.56	G 2	1¼
40	40	1½"	3.27	2.49	0.91	6.06	8.74	G 2¼	1½
	50	2"	4.06	2.49	0.91	7.24	10.47	G 2¾	2

Dimensions in inch

MG = diaphragm size

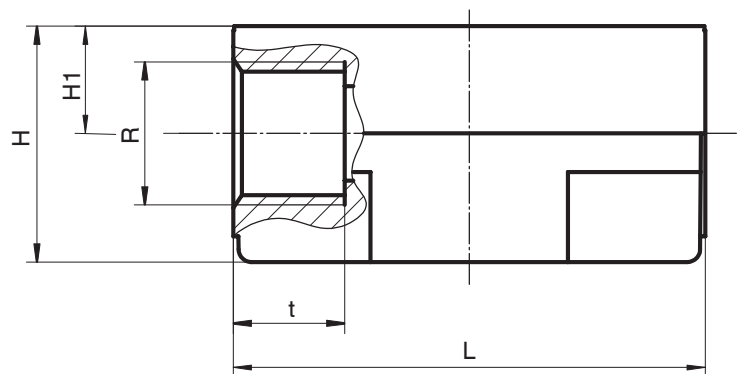
1) **Connection type**

Code 7R: Union end with insert (Rp threaded socket) – DIN

Code 3P: Union end with insert (NPT threaded socket)

2) **Valve body material**

Code 1: PVC-U, grey

Threaded socket (code 1)**Connection type threaded socket (code 1)¹⁾, body materials PVC-U (code 1), PP (code 5), PVDF (code 20)²⁾**

Connection type threaded cock (code 1) ; body materials 1- V2- 3 (code 1); 1- 1 (code 3); 1- V2- 1 (code 10)								
MG	DN	NPS	H		H1	L	R	t
			Material					
			1, 5	20				
10	12	3/8"	1.08	1.24	0.49	2.17	G3/8	0.51

Dimensions in inch

MG = diaphragm size

1) Connection type

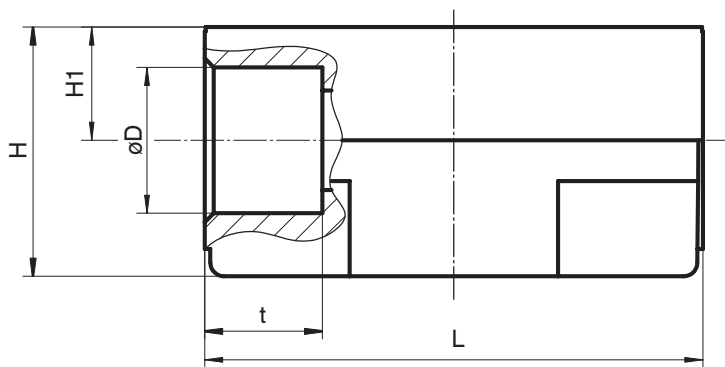
Code 1: Threaded socket DIN ISO 228

2) Valve body material

Code 1: PVC-U, grey

Code 5: PP, reinforced

Code 20: PVDF

Solvent cement socket (code 2)**Connection type solvent cement socket (code 2)¹⁾, body material PVC-U (code 1)²⁾**

MG	DN	NPS	ø D	H	H1	L	t
10	12	3/8"	0.63	1.08	0.49	2.17	0.51

Dimensions in inch

MG = diaphragm size

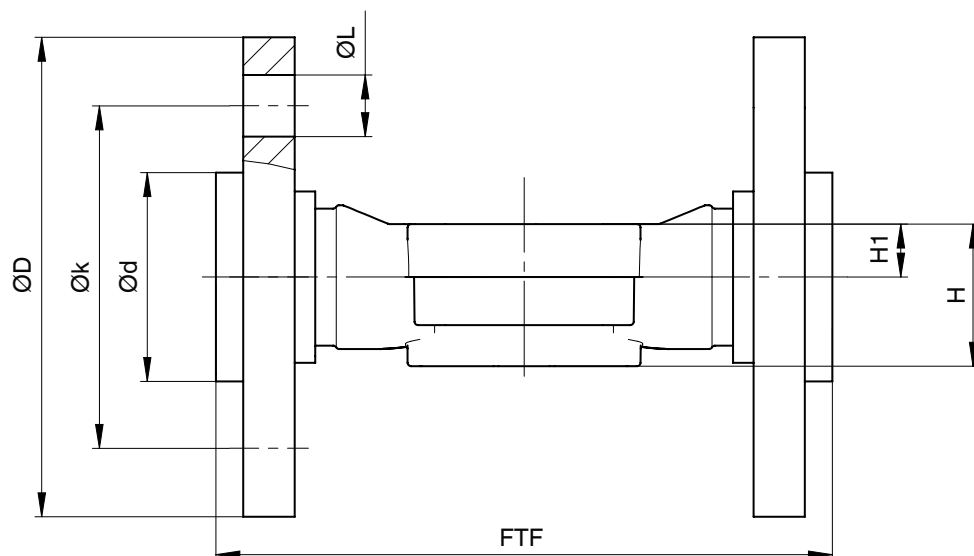
1) Connection type

Code 2: Solvent cement socket DIN

2) Valve body material

Code 1: PVC-U, grey

Flange EN (code 4)



Connection type flange EN (code 4)¹⁾, body material PVC-U (code 1)²⁾

MG	DN	NPS	ød	øD	FTF	H	H1	øk	øL	n
20	15	1/2"	1.34	3.74	5.12	1.42	0.39	2.56	0.55	4
	20	3/4"	1.61	4.13	5.91	1.50	0.47	2.95	0.55	4
	25	1"	1.97	4.53	6.30	1.54	0.51	3.35	0.55	4
25	32	1 1/4"	2.40	5.51	7.09	1.61	0.59	3.94	0.71	4
40	40	1 1/2"	2.87	5.91	7.87	2.49	0.91	4.33	0.71	4
	50	2"	3.54	6.50	9.06	2.49	0.91	4.92	0.71	4
50	65	2 1/2"	4.17	7.28	11.42	3.10	1.53	5.71	0.71	4

Connection type flange EN (code 4)¹⁾, body materials PP (code 5), PVDF (code 20)²⁾

Connection type range EN (code 4) ; ISO materials 1.1 (code 6) ; 1.4 (code 26)											
MG	DN	NPS	ød		øD	FTF	H	H1	øk	øL	n
			Material								
			5	20							
50	65	2½"	4.80	4.72	7.28	11.42	3.10	1.53	5.71	0.71	4

Dimensions in inch

MG = diaphragm size

n = number of bolts

1) Connection type

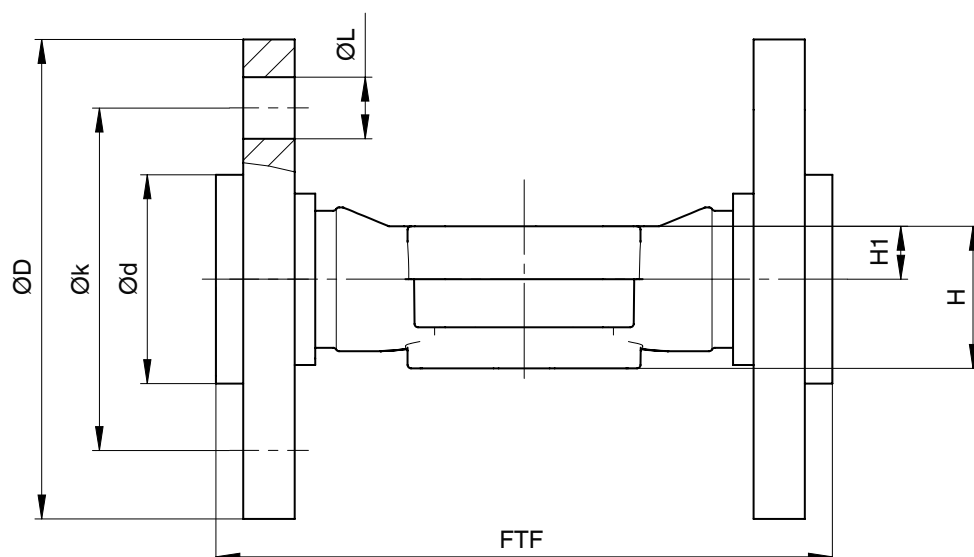
Code 4: Flange EN 1092, PN 10, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1

2) Valve body material

Code 1: PVC-U, grey

Code 5: PP, reinforced

Code 20: PVDF



Connection type flange EN (code 4)¹⁾, body material inliner/outliner (code 71, 75)²⁾

MG	DN	NPS	ød	øD	FTF	H	H1	øk	øL	n
20	15	1/2"	1.77	3.74	5.12	1.42	0.39	2.56	0.55	4
	20	3/4"	2.28	4.13	5.91	1.50	0.47	2.95	0.55	4
	25	1"	2.68	4.53	6.30	1.54	0.51	3.35	0.55	4
25	32	1 1/4"	3.07	5.51	7.09	1.61	0.59	3.94	0.71	4
40	40	1 1/2"	3.46	5.91	7.87	2.49	0.91	4.33	0.71	4
	50	2"	4.02	6.50	9.06	2.49	0.91	4.92	0.71	4

Dimensions in inch

MG = diaphragm size

n = number of bolts

1) **Connection type**

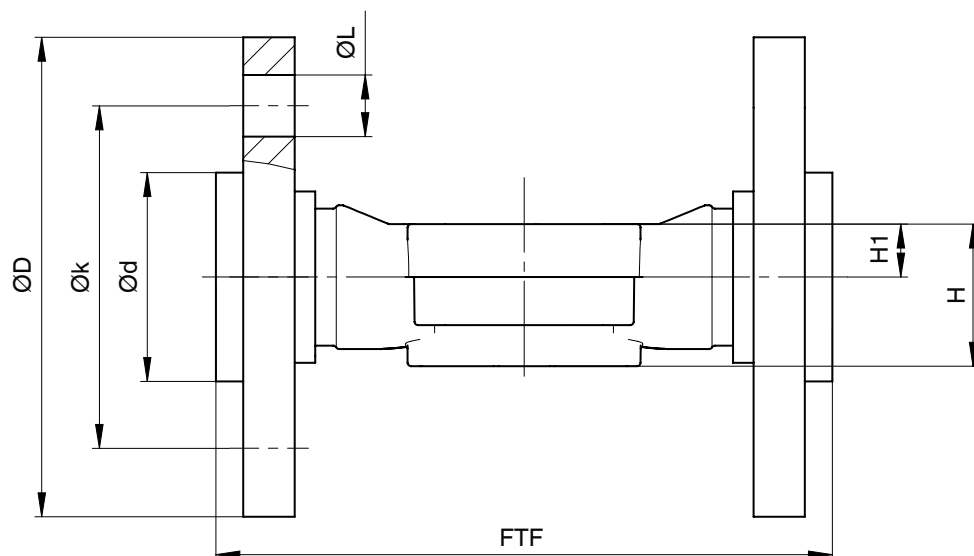
Code 4: Flange EN 1092, PN 10, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1

2) **Valve body material**

Code 71: Inliner PP-H, grey, outliner PP, reinforced

Code 75: Inliner PVDF/outliner PP, reinforced

Flange ANSI (code 39)



Connection type flange ANSI (code 39)¹⁾, body material PVC-U (code 1)²⁾

MG	DN	NPS	ød	øD	FTF	H	H1	øk	øL	n
20	15	1/2"	1.34	3.74	5.12	1.42	0.39	2.36	0.63	4
	20	3/4"	1.61	4.13	5.91	1.50	0.47	2.76	0.63	4
	25	1"	1.97	4.53	6.30	1.54	0.51	3.11	0.63	4
25	32	1 1/4"	2.40	5.51	7.09	1.61	0.59	3.50	0.63	4
40	40	1 1/2"	2.87	5.91	7.87	2.49	0.91	3.86	0.63	4
	50	2"	3.54	6.50	9.06	2.49	0.91	4.76	0.75	4
50	65	2 1/2"	4.17	7.28	11.42	3.10	1.53	5.51	0.75	4

Connection type flange ANSI (code 39)¹⁾, body material PP (code 5), PVDF (code 20)²⁾

Connection type range A100 (code 07) ; body material 1 (code 08) ; FTF (code 20)											
MG	DN	NPS	ød		øD	FTF	H	H1	øk	øL	n
			Material								
			5	20							
50	65	2½"	4.80	4.72	7.28	11.42	3.10	1.53	5.51	0.75	4

Dimensions in inch

MG = diaphragm size

n = number of bolts

1) Connection type

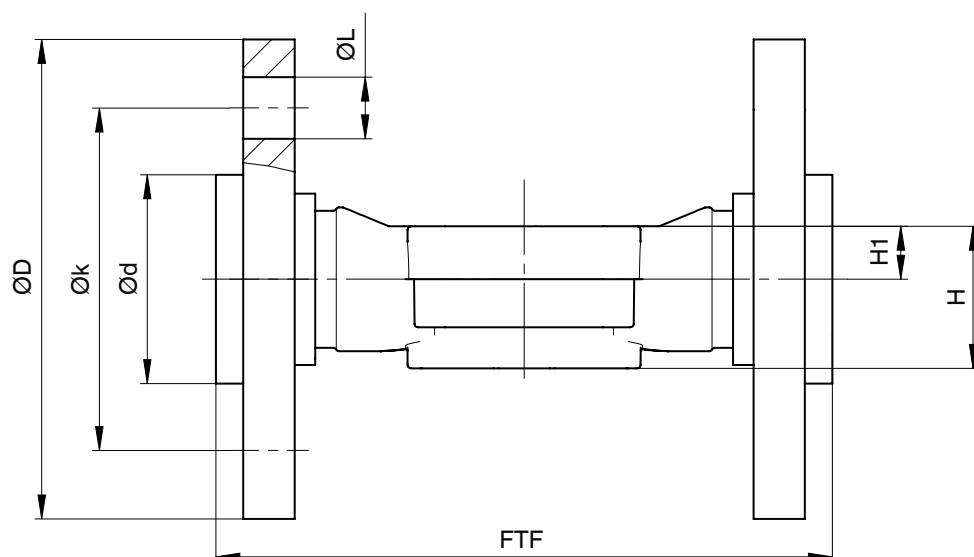
Code 39: Flange ANSI Class 125/150 RF, length only for body configuration D acc. to EN 558 series 1, ISO 5752, basic series 1

2) Valve body material

Code 1: PVC-U, grey

Code 5: PP, reinforced

Code 20: PVDF



Connection type flange ANSI (code 39)¹⁾, inliner/outliner body material (code 71, 75)²⁾

MG	DN	NPS	ød	øD	FTF	H	H1	øk	øL	n
20	15	1/2"	1.77	3.74	5.12	1.42	0.39	2.36	0.63	4
	20	3/4"	2.13	4.13	5.91	1.50	0.47	2.76	0.63	4
	25	1"	2.48	4.53	6.30	1.54	0.51	3.11	0.63	4
25	32	1 1/4"	2.87	5.51	7.09	1.61	0.59	3.50	0.63	4
40	40	1 1/2"	3.23	5.91	7.87	2.49	0.91	3.86	0.63	4
	50	2"	4.02	6.50	9.06	2.49	0.91	4.76	0.75	4

Dimensions in inch

MG = diaphragm size

n = number of bolts

1) **Connection type**

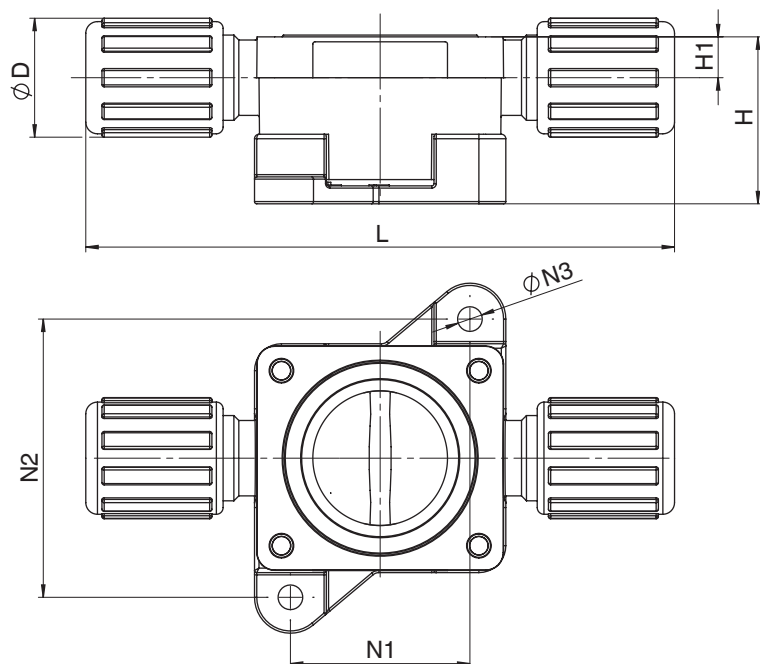
Code 39: Flange ANSI Class 125/150 RF, length only for body configuration D acc. to EN 558 series 1, ISO 5752, basic series 1

2) **Valve body material**

Code 71: Inliner PP-H, grey, outliner PP, reinforced

Code 75: Inliner PVDF/outliner PP, reinforced

Flare (code 75)



Connection type flare (code 75) ¹⁾, body material PP-H (code N5) ²⁾

MG	DN	NPS	ØD	H	H1	L	N1	N2	ØN3
10	15	1/2"	1.04	1.50	0.39	5.20	1.57	2.44	0.22
	20	3/4"	1.04	1.75	0.59	5.28	1.57	2.44	0.22

Dimensions in inch

MG = diaphragm size

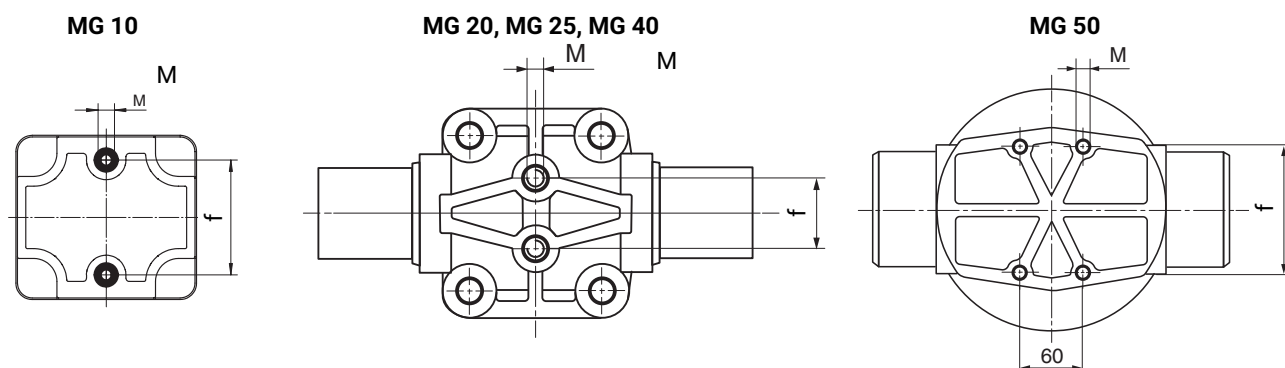
1) **Connection type**

Code 75: Flare connection with PVDF union nut

2) **Valve body material**

Code N5: PP-H, natural

Valve body mounting

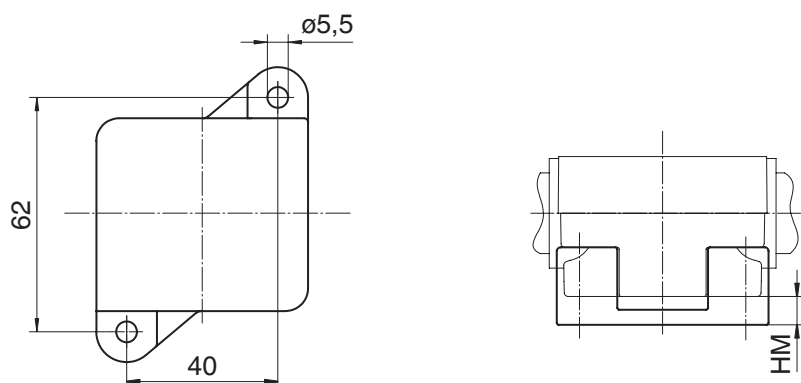


MG	DN	M	f
10	10 - 20	M5	1.38
20	15 - 25	M6	0.98
25	32	M6	0.98
40	40, 50	M8	1.75
50	65	M8	1.75

Dimensions in inch

MG = diaphragm size

Mounting plate



MG	DN	HM
10	12	1.97
	15	1.77
	20	1.77

Dimensions in inch

MG = diaphragm size

Accessories

GEMÜ 1041

Mounting and compensating plate



GEMÜ 1041 is a mounting and compensating plate which serves to mount and align GEMÜ plastic diaphragm valves with union ends.

GEMÜ 1215

Electrical position indicator



The GEMÜ 1215 electrical position indicator indicates one position of the valve. It is designed so that it can be mounted to GEMÜ valves via a female thread in the actuator housing.

The product cannot be ordered later. It must be selected as order option "Control module" (see order data) when ordering.

GEMÜ 1218

Connector



The GEMÜ 1218 is a connector (cable socket / cable plug), 7-pin. Straight and/or 90° angled plug type.

GEMÜ 1218 Binder connector			
Connection X1 – supply voltage, relay outputs			
Binder plug	468/eSy series mating connector	Terminal compartment/ screws, 7-pin	88220649 ¹⁾
		Terminal compartment/ screws, 7-pin, 90°	88377714
		Terminal compartment/ screws, 7-pin, 90°, fitted with a 2 metre cable set	88770522

1) provided in the scope of delivery

GEMÜ 1573

Switching power supply unit



The GEMÜ 1573 switching power supply unit converts unstable input voltages from 100 to 240 V AC into a continuous DC voltage. It can be used as an accessory for valves with motorized actuators e. g. GEMÜ eSyLite, eSyStep und eSyDrive and for additional devices with a 24 V DC power supply. Different power levels, output currents and a 48 V DC version for servoDrive actuators are available.

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Input voltage	Output voltage	Output current	Item number
100 - 240 V AC	24 V DC	5 A	88660400
		10 A	88660401



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